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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,539	04/08/2004	Robin D. Katzer	IDF 2666 (4000-18700)	8371
28/0/3	7590	04/02/2008		
SPRINT			EXAMINER	
6391 SPRINT PARKWAY			TECKLU, ISAAC TUKU	
KSOPHT0101-Z2100				
OVERLAND PARK, KS 66251-2100				
			ART UNIT	PAPER NUMBER
			2192	
			MAIL DATE	DELIVERY MODE
			04/02/2008 PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/820,539

**Applicant(s)**

KATZER ET AL.

**Examiner**

ISAAC T. TECKLU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-23 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/CIS)  
Paper No(s)/Mail Date 02/26/2008  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-23 have been examined.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 13 and 16 are directed to "A system". However, as recited, the system is reasonably interpreted as entirely software, which amounts to descriptive material per se. The system is not recorded on any computer-readable medium that would permit the functionality of the tool to be realized. Thus, the claim is directed to non-statutory subject matter. See MPEP § 2106.01(I).

Claims 1-12, 14-15 and 17-22 are rejected for failing to cure the deficiencies of the above rejected non-statutory claim 1, 13 and 16 above.

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Mullins (US 7,149,730 B2).

Per claim 1, Mullins discloses a system for decoupling commercial-off-the-shelf software applications from data stores, the system comprising:

a plurality of commercial-off-the-shelf software applications each operable with one of a plurality of first data stores (col. 2:30-40 "... accessing multiple database by multiple object applications ..." and e.g. Figure 5 and related text), each of the plurality of commercial-off-the-shelf software applications providing output compatible with one of the plurality of first data stores (col. 6:35-45 "... software application in a manner compatible with relational data stores ...");

a plurality of second data stores (col. 8:55-65 "... data stores ..."); and  
a translator in communication with the plurality of commercial-off-the-shelf software applications and the plurality of second data stores (col. 29: 20-30 "...for translating between a wide variety of different data formats ..."), the translator operable to translate the output from the at least one of the of commercial-off-the-shelf software applications for storage by one of the plurality of second data stores (col. 8:1-15 "... translate data between each of an object database, a relational database...").

Per claim 2, Mullins discloses the system of Claim 1, further comprising a data access layer in communication with the translator and operable to determine where to direct the output from one of the commercial-off-the- shelf software applications to one of the plurality of second data stores (e.g. Figure 1, 600 and col. 8:50-60 "... an abstract layer ... data stores ..." and col. 9:1-10 "... adapter abstraction layer 600 of Figure 1 ..." and col. 13:30-40 "... specific adapter and data object ... specific data stores supporting appropriate reference handling ...").

Per claim 3, Mullins discloses the system of Claim 2, wherein the data access layer maintains an enterprise data model including a data map of where to direct the output of each of the commercial-off-the-shelf software applications (col. 3:25-35 "... map to both the primary and secondary databases in order to successfully implement a dynamic transient memory ..." and e.g. Figure 2, 1C and related text).

Per claim 4, Mullins discloses the system of Claim 3, wherein the data access layer receives the translated output from the translator and directs the translated output to one of the plurality of second data stores (e.g. Figure 1, 600 and 302-322 and related text).

Per claim 5, Mullins discloses the system of Claim 1, wherein a first commercial-off-the-shelf software application of the plurality of commercial-off-the-shelf software applications is operable to provide a first output in DB2 (e.g. Figure 3, Relational Database and related text) and wherein the translator is operable to translate the first output to Oracle (col. 36:30-40 "... data source object database such as Oracle ...").

Per claim 6, Mullins discloses the system of Claim 5, wherein a second commercial-off-the-shelf software application of the plurality of commercial-off-the-shelf software applications is operable to provide a second output in an older version of DB2 (col. 20:45-55 "... older than the version already in the database ...") and wherein the translator is operable to translate the second output to a newer version of DB2 (col. 20:40-50 "... newer version of a map ...").

Per claim 7, Mullins discloses the system of Claim 1, wherein a first commercial-off-the-shelf software application of the plurality of commercial-off-the-shelf software applications is operable to provide a first output in an older version of Oracle and wherein the translator is operable to translate the first output to a newer version of Oracle (col. 20:40-50 "... newer version of a map ...").

Per claim 8, Mullins discloses the system of Claim 1, wherein at least one of the second data stores is associated with one of the plurality of first data stores (col. 8:55-65 "... data stores ...").

Per claim 9, Mullins discloses the system of Claim 8, wherein the at least one of the second data stores is further defined as a newer version data store of one of the plurality of first data stores (col. 20:40-50 "... newer version of a map ...").

Per claim 10, Mullins discloses the system of Claim 9, wherein at least one of the second data stores is further defined as a newer version of an Oracle database and wherein one of the plurality of first data stores is further defined as an older version of the Oracle database (col. 20:45-55 "... older than the version already in the database ...").

Per claim 11, Mullins discloses the system of Claim 9, wherein at least one of the second data stores is further defined as a newer version of a DB2 database and wherein one of the plurality of first data stores is further defined as an older version of the DB2 database (col. 20:45-55 "... older than the version already in the database ...").

Per claim 12, Mullins discloses the system of Claim 1, wherein the plurality of commercial-off-the-shelf software applications are each operable with only one of a plurality of data stores, each of the plurality of commercial-off-the-shelf software applications providing output compatible with only one of the plurality of data stores (col. 6:35-45 "... software application in a manner compatible with relational data stores ...").

Per claim 13, Mullins discloses a system for maintaining compatibility of commercial-off-the-shelf software applications with data stores, the system comprising:

a commercial-off-the-shelf software application operable with only a first data store, the commercial-off-the-shelf software application providing an output compatible with only the first data store (col. 6:35-45 "... software application in a manner compatible with relational data stores ...");

a listener operable to receive the output from the commercial-off-the-shelf software application (col. 4:40-50 "... access the database directly through a database driver ..." and col. 12:45-50 "... using a JDBC driver to which is passed data store access code 205 of Figure 5");

a translator in communication with the listener to receive the output and operable to translate the output (col. 29: 20-30 "...for translating between a wide variety of different data formats ...");

a data access layer in communication with the translator and operable to determine, based on an enterprise data model, where to direct the output of the commercial-off-the-shelf software applications (e.g. Figure 1, 600 and col. 8:50-60 "... an abstract layer ... data stores ..." and col. 9:1-10 "... adapter abstraction layer 600 of Figure 1 ..." and col. 13:30-40 "... specific adapter and data object ... specific data stores supporting appropriate reference handling ...");

a wrapper operable to receive the translated output from the data access layer and to wrap



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the translated output based on a storage format (col. 16:1-10 "... XA component often wrappers..."); and

a second data store based on the storage format and operable to receive and store the wrapped and translated output (col. 8:1-15 "... translate data between each of an object database, a relational database...").

Per claim 14, Mullins discloses the system of Claim 13, wherein the second data store is a newer version data store of the first data store (col. 20:40-50 "... newer version of a map ...").

Per claim 15, Mullins discloses the system of Claim 13, wherein the second data store is a different vendor database than the first data store (col. 8:1-15 "... translate data between each of an object database, a relational database...").

Per claim 16, Mullins discloses a system for integration of commercial-off-the-shelf software applications and databases, the system comprising:

a commercial-off-the-shelf software application operable with a first data store, the commercial-off-the-shelf software application providing an output compatible with the first data store (col. 6:35-45 "... software application in a manner compatible with relational data stores ...");

a translator operable to receive the commercial-off-the-shelf software application output and to translate the output (col. 29: 20-30 "...for translating between a wide variety of different data formats ...");

a second data store operable to receive and store the translated output (e.g. Figure 1, 600 and col. 8:50-60 "... an abstract layer ... data stores ..." and col. 9:1-10 "... adapter abstraction layer 600 of Figure 1 ..." and col. 13:30-40 "... specific adapter and data object ... specific data stores supporting appropriate reference handling ...");

a service broker operable to maintain a record of transaction output from the commercial-off-the-shelf software application and stored in the second data store, the service broker further operable to roll-back failed transactions (col. 31:1-15 "... record upon transaction completing... including commit or roll-back...").

Per claim 17, Mullins discloses the system of Claim 16, further comprising a data access layer in communication with the translator and operable to determine, based on an enterprise data model, where to direct the output of the commercial-off-the-shelf software applications (e.g. Figure 1, 600 and col. 8:50-60 "... an abstract layer ... data stores ..." and col. 9:1-10 "... adapter abstraction layer 600 of Figure 1 ..." and col. 13:30-40 "... specific adapter and data object ... specific data stores supporting appropriate reference handling ...").

Per claim 18, Mullins discloses the system of Claim 16, wherein the commercial-off-the-shelf software application is operable with only the first data store, and wherein the commercial-off-the-shelf software application provides the output compatible with only the first data store (col. 6:35-45 "... software application in a manner compatible with relational data stores ...").

Per claim 19, Mullins discloses the system of Claim 16, wherein the service broker further comprises:

a transaction data store operable to maintain a record of the output by the commercial-off-the-shelf software application (e.g. Figure 1, 600 and col. 8:50-60 "... an abstract layer ... data stores ..." and col. 9:1-10 "... adapter abstraction layer 600 of Figure 1 ..." and col. 13:30-40 "... specific adapter and data object ... specific data stores supporting appropriate reference handling ...");

an exception handler operable to identify a failed transaction and communicate with the transaction data store to restore the second data store to a state prior to the failed transaction (col. 39: 10-15 "... if there is an error in the pre-processing ..").

Per claim 20, Mullins discloses the system of Claim 19, further comprising a data warehouse and wherein the data warehouse is asynchronously updated with the output from the commercial-off-the-shelf software application (e.g. Figure 7, 3B and related text).

Per claim 21, Mullins discloses the system of Claim 19, wherein a compensating transaction is used to restore the failed transaction (col. 35:30-40 "... failed ... utilizing the same cache in this instance ...").

Per claim 22, Mullins discloses the system of Claim 21, wherein an XA transaction is used in combination with the compensating transaction to restore the failed transaction (col. 5:35-40 "... utilize the transaction coordination facilities ..." and col. 16:1-10 "... passed the XA ...").

Per claim 23, Mullins discloses the system of Claim 19, further comprising:

- a data warehouse operable to maintain data (col. 2:30-40 "... accessing multiple database by multiple object applications ..." and e.g. Figure 5 and related text);
- a query processor to manage transaction processing of data requests from the commercial-off-the-shelf software application (col. 5:55-60 "... transaction monitor ..."); and
- a metadata repository maintaining a logical data model related to the data, the metadata repository instructs the query processor regarding handling of the data requests from the commercial-off-the-shelf software application and between the second data store and the data warehouse (col. 6:10-20 "... repository file collection ... repository based mapping ...").

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAAC T. TECKLU whose telephone number is (571)272-7957. The examiner can normally be reached on M-TH 9:300A - 8:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Isaac T Tecklu/

Examiner, Art Unit 2192

/Tuan Q. Dam/

Supervisory Patent Examiner, Art Unit 2192